

REMARKS

As per Claims 26 and 35, the invention can best be explained by an analysis of the procedure that brings the modules together. They are assembled in an end to end relationship as described and this relationship then starts to alter. Many configurations can be achieved by the boxing modules associating with untied and unspaced modules or panels.

Sedran discloses no such procedure and his panel arrangement has not been designed or engineered to achieve this desired result. What we see of drawing page 20/27 is fixed modules fixed by strap spacer B. This arrangement is not a push-in tie, and cannot accept beams or angle irons or external straps. It can only be joined internally with a joining block to add extra span to the fixed modules and this is only at ground level application, as shown in foundation drawing 20/27 and short beam drawing 23/27.

These straps B cannot attach to any form of bracing externally (outside the outer edge of the formwork) and cannot attach or carry any of these heavy exterior items.

It is also mentioned that drawing page 20/27 (setting reinforcement means between the formwork as required) is apparently misunderstood by the Examiner, as it has been confused that the reinforcement is set in between the moulding faces of the fixed and tied panels. What Sedran teaches is that his panels are reinforced by metal or fibre cores externally to stiffen the panel only. These cores can be removed from the panel before the panel gets recycled.

As per Claim 28, Sedran's connecting pins connect through round slots in the sides of the modules and cannot be quickly pulled out, or levered out, because they do not have open-ended slots – in fact they have to be hammered out.

As per Claims 29 and 34, Sedran does not have any push-in ties and this has been acknowledged by the Examiner on page 9, lines 8 and 9. Sedran's strap tie can only connect horizontally.

As per Claim 30, Sedran's clamping device cannot be prized out or pulled out because it does not possess an open-ended slot. The clamping device can only be hammered out and both ends cannot be pushed in simultaneously because blocks ZT can only be slid on strap B to hold onto the outer edge of the panels.

As per Claim 31, Sedran's strap B cannot fairly be considered a clamping device as it is only a tie, connecting two transversely opposed modules and they cannot accept straps beams or angle irons externally.

As per Claim 32, on page 20/27, Sedran's panels possess a spherical border but the slot arrangements are completely different, as the applicants are open ended and use a completely different quick release device. The applicants panels can connect or be held in by the spaced and tied modules, but Sedran's panels can only connect to themselves including spacer-panel L which still has identical round slots for attachment purposes and are held in by exterior ties. Sedran's panel L cannot be used in wall application on a multi-row formwork assembly. Sedran has not disclosed that his formwork can carry unspaced and untied modules in a walling situation, or whether it can alternate in a variety of formations.

As per Claim 33, panel L. is a filler panel for low ground work to achieve stipulated formwork lengths. It is tied externally by exterior tie bolts. This arrangement is not possible when building a wall because the folded edge on panel L pushes over the top of its adjacent panels for connection purposes. Refer to drawing 20/27 and 23/27, and in particular drawing 23/27 - the folded edge on panel L is overlapping onto its adjacent panels. If another row was placed on top, the size of the row would be increased by the thickness of the wall section as a result of the top of the folded edge. If another row was placed on top of the existing row the normal panels would not be running at their supposed position, therefore connecting slots would not line up and it would throw the panels out of square alignment. Page 10/27 clearly shows this and only resorts to panels with the inserted metal cores to take the force exertions. Panel L being as shown on page 20/27 in a walling situation would not be able to withstand concrete being dropped from a finished wall height.

As per Claim 36, strap B of Sedran is not an external bracing strap nor a beam, nor an angle iron. It is simply a tie holding the connected panels in a pre-determined position. Strap B is a tie and every tie in formwork can take force but not adjusted to increase strength of the same. In Sedran's case the only way to increase its strength would be to increase its thickness. On page 13 of Sedran's patent, lines 10 – 15, Sedran explains that at the top the thrusting force is counteracted by bars with holes (B). All this means is that it can hold the panel in its place and withstand the force it has to contend with. There is no 'force adjustment'.

As per Claim 37, it states that the spaced and tied modules can be surrounded by transversely opposed, untied, unspaced modules or panels. Diagram 20/27 shows that the transversely opposed panels are of a different size and they are all spaced and tied. There are no individual unspaced and untied panels in this diagram and, if there are, they do not surround a boxing module.

As per Claim 38, Sedran, page 14, line 3, states Table 23/27 shows an example of the application for the concrete reinforcement of foundation plinths. In particular it shows how the bars with holes (B) can be lengthened as desired by using connector elements (M) and pins (H). A foundation plinth is not a horizontal column. A foundation is the support for the building structure and is only located on the ground. There are no columns integrating with a floor slab in this diagram.

As per Claim 39, Sedran's strap B is a tie. It is capable of accepting another strap B via a connector. What is being shown here is that it can only accept ties internally (within the moulding surfaces of the panels) but cannot externally attach to bracing straps, beam or angle irons because strap B is not capable of this even under modification as it would bend.

As per Claim 40, strap B is not capable of supporting unspaced and untied panels held in by the boxed modules. It would make the formwork fall out of alignment because it is not designed to carry panel weight nesting inside the moulding face of the boxing module.

As per Claim 41, as explained previously, page 24/27 has different sized panels transversely opposed and this formation does not alternate and is not capable of any configurations. It is fixed in its panel positions, horizontal or vertical until it reaches its desired height. What is meant by alternation is that no row of formwork is the same until it reaches its desired finishing height.

As per Claim 42, pages 21/27 clearly shows they are in a stacked formation which cannot alternate in this assembly and they also do not have a boxing module to panels that is an untied and unspaced association. To better understand Claim 42, is that in a stacked formation horizontal or vertical, the boxing modules to the untied and unspaced module or panel relationship can alternate in these mentioned planes.

As per Claim 45, Sedran in Claim 1, claims the injection moulding process. Sanders, cited previously, discloses a roto-moulded dustbin cover. However, the applicant believes that his

roto-moulded panel is unique, is not suggested by the cited prior art, and is entitled to patent protection..

As per Claim 46, Sedran does not teach that external corners joined or abutted can create vertical columns. Figure on drawing page 21/27 clearly shows panels held in by square tubes. This is a completely different concept to what the applicant wants to patent. The applicant actually uses external corner moulds joined or abutted to create a vertical column.

As per Claim 47, the term internally in this instance is describing what happens between the moulding surfaces of the boxing modules in combination with the individual panels. Externally means what happens outside the boxing modules ie exterior surfaces of the boxing modules or panels. Sedran does not teach that the modules are provided with internal stiffening. The examiner has confused and stated internal stiffening features on the outer wall portions. This has no relevance for internal stiffening with hard drawn metal reinforcement bars within the moulding face of the modules or panels, boxed or unboxed.

Claim rejections under 35 USC § 103

Claims 27; 43; 44 and 48 have been misconstrued and wrongfully rejected by the Examiner.

As per Claim 27 the teachings of Boeshart's push-in, stop-end, bracket 42, is just that. It is not a push-in tie. If one was to modify Sedran's strap tie B to accept stop-end bracket 42, it would not change it to be classified as a push-in tie. A push-in tie is not a bracket. It is a complete unit that is pushed in simultaneously into two transversely opposed modules connecting the two panels and forming a void into which concrete is poured.

As per Claim 43 and 44, Sedran does not disclose the overall formwork is braced and stiffened externally by straps, beams and angle irons. Sedran only discloses metal or fibre cores that only help stiffen the individual modular panel. Page 5, line 4 and 5 of Sedran's patent teaches that the metal or fibre cores lighten and stiffen the panels and do not provide any bracing elements. Boeshart teaches rods 38 only shown in Figure 5 not Figure 10 is the alternative stop-end tie bracket 42. Boeshart's patent (column 4 line 21 – 25) describes two purposes rod 38 achieves. The first purpose is to hold the panels in a predetermined position. The second purpose being it acts as a waler to retain and align forms or panels and does not act as a brace for the formwork. In Boeshart's patent

Figure 10, which displays internal reinforcement bars, which are not numbered, does nothing to brace and stiffen the formwork. These bars are only placed to reinforce the finished concrete structure. For it to be able to reinforce the formwork, it has to have a combination of vertical and horizontal bars within the formwork firmly connected to the spaced ties.

As per Claim 48, the workings of the internal metal reinforcement bars have been clearly explained in the above paragraph. The teachings of Boeshart's modified Sedran ties would not achieve anything as reinforcement rod 38 (figure 5 [not figure 10]) is placed externally as a waler. As per the Examiner's perception of the workings of the internal reinforcement bars which are normally only there to reinforce the finished concrete structure – this is correct - but using the metal reinforcement bars to stiffen the formwork before pouring concrete is a completely new and novel idea associated with the applicant's patent.

For the foregoing reasons, claims 26-48, as revised by the (Proposed) Amendment, which raise no new issues and do not introduce new matter, should be considered favorably, with a view toward allowance.

Respectfully submitted,

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